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REMARKS

Claims 1 to 8 and 10 to 12 are pending. No claims are allowed.

1. At the outset, the Applicants would like to thank Examiner Gregg Cantelmo for the time he took on May 21, 2003, to discuss the merits of the application with their attorney.

2. The disclosure is objected to because of an informality on page 6. The specification has been amended to correctly reference U.S. Patent No. 5,750,286. This patent is also referenced on page 5, line 4. Therefore, no new matter is added.

3. Independent claims 1, 5 and 11 have been amended to set forth that the plurality of current collectors are connected to the support member. Each of them comprises planar first and second major faces oriented generally parallel to each other. The planar major faces extend to an intermediate peripheral edge that is not connected to the peripheral edge of an immediately adjacent current collector. In that manner, the current collectors are only connected to the support member.

This construction is an improvement over the dual beam female electrical box contact taught by Loewen et al. (U.S. Patent No. 4,712,299. As previously discussed in the amendment filed April 1, 2003, the dual beam female box

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contacts do not have planar first and second major faces extending to an intermediate peripheral edge. Instead, the fully assembled electrical contacts are three-dimensional, shaped articles made by cutting, folding and bending a planar piece of sheet stock. In their final form, they would not be useful as a current collector in an electrochemical cell or capacitor. Incorporation into an electrical energy storage device such as an electrochemical cell or capacitor is set forth as an intended use of the claimed current collectors.

With regard to McDowell (U.S. Patent No. 4,20,230), the Applicants have amended independent claims 1, 5 and 11 to set forth that the intermediate peripheral edge between the planar first and second major faces of a current collector does not contact the peripheral edge of an immediately adjacent current collector. In McDowell's interconnected grids, the headers 28 from alternating grids connect to a lug interior strip (designated the support member by the Examiner) so that oppositely directed headers or tabs along with the support member form the open portions 17.

After McDowell's grids are contacted with an active material, they must be severed where the header from one grid connects to the lug interior strip of an opposite grid (indicated with a dashed line in Fig. 6). This effectively separates the plurality of interconnected grids into two rows of grids. However, the grids along each row are still connected at the open network 32, and they must be separated from each here as well (indicated with a dashed

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line in Fig. 6). The problem is that the open network is continuous and there is no structure for a border delineating the open network of one grid from that of another. The process of separating the grids from each other at the open network is very likely going to cause some of the active material contacted to the grids to delaminate from the open network. As one of ordinary skill in the art can appreciate, delamination or cracking of the deposited active material is very undesirable, especially when the coated grid is intended as an electrode in an electrochemical cell or capacitor.

Accordingly, it is believed that amended independent claims 1, 5 and 11 are patentable over both Loewen et al. and McDowell, whether taken alone or in combination with each other. Claims 2 to 4, 6 to 8, 10 and 12 are allowable as hinging from patentable base claims.


4. A clean copy of the amended specification paragraph and the pending claims is attached to the end of this amendment.

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It is believed that claims 1 to 8 and 10 to 12 are now in condition for allowance. Notice of Allowance is requested.

Respectfully submitted,


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Clean Copy of the Amended Specification Paragraph


Please replace the paragraph beginning at page 6, line 19 with the following rewritten paragraph:

 --Figs. 3-4 show a detailed view of the current collector screen that can be used for the cathode or anode materials depending on the orientation of the case (i.e., case negative or case positive). This particular design for a cathode current collector screen is disclosed in U.S. Patent No. 5,750,286, which is assigned to the assignee of this application and incorporated herein by reference. Other types of current collector screens can also be used with the support member 12.--

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Clean Copy of the Pending Claims

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1. A common carrier, comprising:
 - a) an elongate support member having a plurality of locating holes disposed thereon; and
 - b) a plurality of current collectors connected to the support member, wherein each of the current collectors comprises planar first and second major faces oriented generally parallel to each other and extending to an intermediate peripheral edge not connected to the peripheral edge of an immediately adjacent current collector and wherein the planar first and second major faces are contactable with an active material to provide an electrode for an electrochemical cell or capacitor.
 2. The common carrier of Claim 1, wherein the current collectors are connected to the support member through an external tab extending from the current collectors.
 3. The common carrier of Claim 1, wherein the current collectors are spaced apart equidistant from one another and are oriented in substantially the same position relative to the support member.
 4. The common carrier of Claim 1, further comprising:
a secondary material disposed on the first and second major faces of the current collectors.

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5. A common carrier, comprising:

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- a) an elongate, planar support member disposed in a generally horizontal orientation and having at least one datum;
 - b) a plurality of current collectors connected to the support member, wherein each of the current collectors comprises planar first and second major faces oriented generally parallel to each other and extending to an intermediate peripheral edge not connected to the peripheral edge of an immediately adjacent current collector and wherein the planar first and second major faces are contactable with an active material to provide an electrode for an electrochemical cell or capacitor; and
 - c) wherein the support member is capable of being oriented with respect to a tool registrable with the datum.

6. The common carrier of Claim 5, wherein the current collectors connect to the support member through an external tab.

7. The common carrier of Claim 6, wherein the external tab connects at a substantially perpendicular orientation with the support member.


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8. The common carrier of Claim 6, further comprising:
a secondary material disposed on the first and second major
faces of the current collectors.

10. The common carrier of claim 4 wherein the secondary
material is of carbon or gold.

11. A common carrier, comprising:

- 
- a) an elongate support member having a plurality of
locating holes disposed thereon; and
 - d) a plurality of current collectors connected to
the support member, wherein each of the current
collectors comprises planar first and second
major faces oriented generally parallel to each
other and extending to an intermediate peripheral
edge not connected to the peripheral edge of an
immediately adjacent current collector and
wherein the planar first and second major faces
are contactable with an active material to
provide an electrode for an electrochemical cell
or capacitor; and
 - c) a secondary material contacted to the first and
second major faces of the current collectors.

12. The common carrier of claim 11 wherein the secondary
material is of carbon or gold.